

BURȚIANA, L.M.; PAVLU, V.

Effect of radiations upon proteins. VI. Studii cerc biochimie 5 no.3:
365-375 '62.

1. Catedra de chimie biologica, Facultatea de medicina veterinara,
Bucuresti.

PAVLU, Vladimir

Rationalization of designer's work. Tech prace 15 no.5:334-
339 My '63.

1. Reditel Statniho ustavu Projekta, Praha.

BURIANA, L.M.; PAVLU, V.

Polarographic analysis of protein solutions exposed to weak ionizing radiations. Biokhimiia 25 no.4:593-598 J1-Ag '60. (MIRA 13:11)

1. Laboratoriya biokhimii, fakul'tet veterinarnoy meditsiny i
laboratoriya obshchey fiziki Politekhnikheskogo instituta, Bukharest.
(PROTEINS—ANALYSIS) (GAMMA RAYS)
(POLAROGRAPHY)

PSY 42 V.
net

ZA SOCIALISTICKOU VEDU A TECHNIKU
(For a Socialist Science and Engineering.)
Vol. 4, No. 1, November, 1954.

Experience gained from the working methods of Soviet design organizations. Soviet design efforts are mainly concentrated on producing standard designs of complete undertakings of various capacities, e. g. foundries of 5000, 10,000, and 20,000 tons per annum casting capacity. In the execution changes are made in accordance with the particular requirements. The organization and supervision of the work in the Soviet design establishments are briefly discussed.
By V. Pavlu..... *ju* 516

PAVLUCH, Lev, inz. C.Sc.

Contribution to the water hammer theory in hydraulic presses. Stroj
cas 14 no.3:279-286 '63.

1. Statni vyzkumny ustav tepelne techniky, Praha.

PAVLUCHOVA, M.

Determining geomagnetic activity by the method of k-indices. p. 103

Vol. 65, No. 1/11 1953 (Pub. 1954)
GEOFYSIKALNI SBORNIK
Praha, Czechoslovakia

So: Eastern European Accession Vol. 5, No. 4, 1956

PAVLUSHIN, G.P., aspirant

Using clamps for experimental investigation of stresses in
the partitions of railroad passenger cars. Izv. vys. ucheb.
zav.; mashinostr. no.5:149-154 '65. (MIPA 18:11)

BIZNYA, V.M., inzh.; KOLPENSKIY, N.S., inzh.; PAVLUKHIN, O.I., inzh.;
MATYUKOV, V.Ye., inzh.; RODIN, I.M., inzh.

Counterflow ventilation system of salient pole synchronous
machines. Vest. elektroprom. 33 no.11:23-29 N '62.

(MIRA 15:11)

(Electric machinery, Synchronous--Cooling)

SILACH, Ye.S., Izv.; LOMLIN, L.A., Izv.; KUPCHEN, G.I., Izv.

possibility of using a magnetic anisotropy transformer with a logometer in systems for the control of power parameters of pipe rolling mills. Izv. truz. no.11:123-126, 1963.

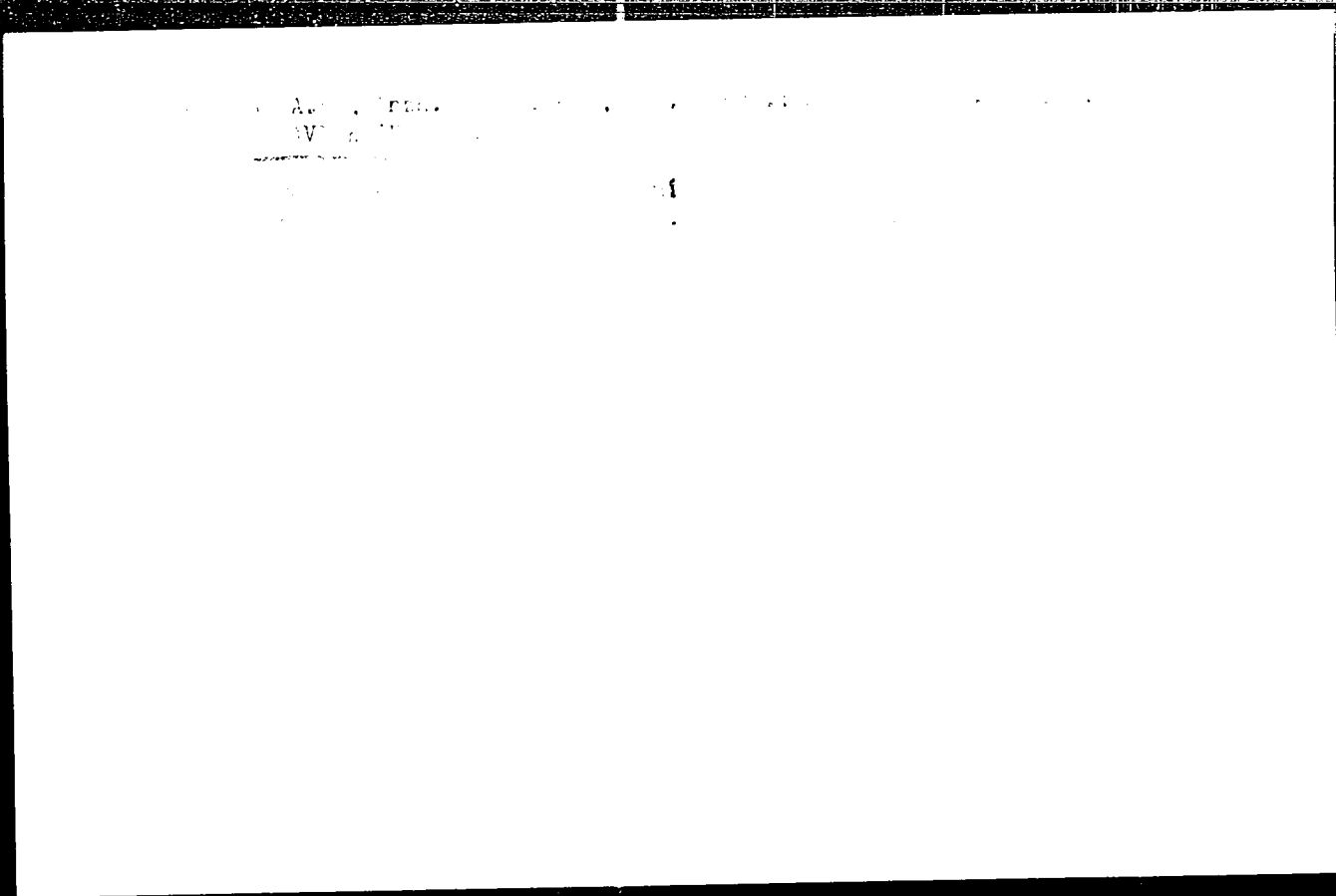
Magnetic sensor with overloading relay. Ibid.:127-131.

(KDA 17:1)

PAVLUKHIN, O.I.; SAMYLIN, A.K.; SIDASH, Ye.S.; TROFINENKO, M.S.

Recording device with noncontact compensation unit. Avton.1
prib. no.4:60-63 O-D '62. (MIRA 16:1)

1. Ukrainskiy nauchno-issledovatel'skiy trubnyy institut.
(Recording instruments)



LIDASE, Ye.S., inzh.: M. TIKH, A.K., inzh.; PAVLUNIN, A.I., inzh.

Operation of a magnetic anisotropy converter in a generator system.
Izobry. tr. no. 12:110-111, 1974.

(MIR) 1:11

PAVLUKHIN, S.M.

Some data on the geography of tick-borne encephalitis in Siberia.
Geog. sbor. no.14:145-155 '61. (MIRA 15:1)
(SIBERIA MEDICAL GEOGRAPHY) (SIBERIA ENCEPHALITIS)
(TICKS AS CARRIERS OF DISEASE)

PREBOROVSKY, F.; PAVLUS, Z.

Function disorders among post-traumatic sequelae in gunshot wounds of the thorax. Rozh. chir. 42 no.11:841-851 N°63.

I. Oddeleni tuberkulozy UVN v Praze (vedouci MUDr. F. Preborovsky); III. vnitřní oddeleni UVN v Praze (vedouci: MUDr. J. Sedivy).

*

PAVLUSENKO, V.P.

Eliminate primitive methods in manufacturing metal-cutting tools.
Mashinostroitel' no.1:36 Ja '61. (MIRA 14:3)
(Metal-cutting tools)

PAVLUSHENKO, I.S.

Comments on I.M. Artiukhova's article "Modeling of reaction
devices in some processes of heterogeneous conversion of
hydrocarbons." Zhur. prikl. khim. 36 no.5:1158-1164 My '63.
(MIRA 16:8)

(Hydrocarbons) (Chemical models)

IL'KOV, B.F.; KIREYEV, G.A.; LOZOVSKIY, A.T.; LAKHMAN, I.L.; NIKOLAYEV, G.A.;
PAVLUSHCHENKO, Y.P.; ROZHDESTVENSKIY, I.K.; RUVINSKIY, I.M.; SAVINOV-
SKIY, D.A.; SENCHENKO, Ye.F.; SEREDA, A.S.; SOKOLIK, V.D.; RASSADNI-
KOV, Ye.I., redaktor; SHEL'YAGINA, A.A., redaktor; LARIONOV, G.Ye.,
tekhnicheskiiy redaktor

[Operation of the Sredne-Uralsk Hydroelectric Power Station] Opyt
ekspluatatsii Sredne-Ural'skoi GRES. Pod red. E.I. Rassadnikova i
I.K. Rozhdestvenskogo. Moskva, Gos. energ. izd-vo, 1956. 103 p.

(MLRA 10:1)

(Sredne-Uralsk Hydroelectric Power Station)

Равишневский, Л. С.

Effective number of revolutions of a stirrer for the agitation of suspensions. L. S. Ravišnevskiy, N. M. Kostin, and S. F. Matveev (Leningrad Technol. Inst., Leningrad). *Zh. Priklad. Khim.* 30, No. 8, 1180-8 (1957).—Studies of the effect of the r.p.m., n , of a stirrer with an impeller of diam. d_m , on the uniformity of distribution of a suspension of sand and of Fe ore of a wide range of particle diam., d_s , in liquids (CCl_4 , aq. glycerol, and H_2SO_4) of a wide range of d_s , ρ_s , and viscosities, μ (kg. sec./sq. cm.) showed that 3 types of conditions existed: (1) stirring was not complete, i.e. the uniformity of distribution was below 100% of the theoretically possible, even at the highest rate of agitation when the depth of the vortex, h_v , reached the level of the impeller; (2) uniform distribution of the solid phase throughout the vol. of the liquid phase; (3) the concn. of the solid particles was above 100% in the upper layers and below 100% in the lower layers. Defining the effective n as the max. rate of agitation, n_e , at which the last 2 types of agitation were attained the following relation was derived by the theory of similitude: $Re = n_e d_m^2 \rho_s \mu = C(d_m^2 g / \rho_s^2 \mu) (\rho_s^2 (d_s/d_m)^3 (D/d_m)^3 (G_s/G_l)^3)^{1/2} = C G_s^{1/2} S_2^{1/2} \Gamma_D^{1/2}$, where ρ_s is the d. of the solid (kg. sec./m.³), G_s and G_l are the vis. of the solid and liquid phases (kg.), resp.; H is the height of the suspension and D is the diam. of the vessel; and g is the acceleration due to gravity (m./sec.²). Under conditions of $H = D$, $\Gamma_H = \Gamma_D$ and 1 of them can be eliminated. Experimentally n_e increased with the concn. of the solid phase up to $G_s/G_l = 1/4$ and remained const. at concns. above this ratio so that S_2 could be eliminated. The final form of the function is then: $Re = C G_s^{1/2} S_2^{1/2} \Gamma_D^{1/2}$. The exptl. values of C , t , h , l , and p were 0.105, 0.6, 0.8, 0.1, and 1.8, resp., $n_e = 0.415$, $\rho_s^{0.5} d_s^{1.5} D^{1.5} / \mu^{0.5} \rho_s^{0.5} d_m^{1.5}$ and $h/d_m = 28.4 (\mu \rho_s d_m^2 / \rho_s^{0.5} d_s^{1.5} g)^{1/2} (D/d_m)^{1/2}$. When $\Gamma_D < 3$, $a = 1$ and $b = -3.8$; when $\Gamma_D \geq 3$, $a = 2.4$ and $b = -2$. These relations agree with the exptl. data in the ranges of $Re = 7.3 \times 10^3 - 3.79 \times 10^4$; $G_s = 3.48 \times 10^3 - 7 \times 10^5$; $\Gamma_D = 9.23 \times 10^{-2} - 8.25 \times 10^{-1}$; $\Gamma_D = 2 - 3$. I. Beacowitz

P. M. LUBSHENKO, I.S.
PAVLUSHENKO, I.S.; KOSTIN, N.M.; MATVEYEV, S.F.

The revolutions per minute of a mixer for mixing suspensions.
Zhur.prikl.khim. 30 no.8:1160-1169 Ag '57. (MIRA 11:1)

1. Leningradskiy tekhnologicheskii institut im. Lensoвета.
(Mixing machinery)

SHTERBACHEK, Z. [Stervacek, Zdenek], inzh.; TAUSK, Petr, inzh.;
SMYSLOVA, M.A. [translator]; PAVLUSHENKO, I.S., red.;
BRAGINSKIY, L.N., red.; ERLIKH, Ye.Ya., tekhn. red.

[Mixing in the chemical industry] Peremeshivanie v khimi-
cheskoi promyshlennosti. Pod red. I.S. Pavlushenko. Lenin-
grad, Goskhimizdat, 1963. 416 p. (MIRA 16:7)

(Mixing machinery)

(Chemical industries—Equipment and supplies)

PLANOVSKIY, Aleksandr Nikolayevich; GUREVICH, Daniil Abramovich; MASANOV, N.I., retsenzent; ROMANKOV, P.G., doktor tekhn. nauk, prof., retsenzent; PAVLUSHENKO, I.S., kand. khim. nauk, dots., retsenzent; PASSET, B.V., kand. khim. nauk, retsenzent; AZBEL', D.S., red.; SHPAK, Ye.G., tekhn. red.

[Apparatus for the industry of organic intermediate products and dyes] Apparatura promyshlennosti organicheskikh poluproduktov i krasitelei. Moskva, Goskhimizdat, 1961. 504 p. (MIRA 15:6)
(Dyes and dyeing—Apparatus)
(Chemical apparatus)

KHARTMANN, K.; PASEET, B.V.; PAVLESHENKO, I.S.

Determination of the optimal correlations of volumes of reactors
of complete mixing in a cascade. Zhur. prikl. khim. 37 no. 4:
838-844. Ap '64. (MIRA 17:5)

1. Leningradskiy tekhnologicheskii institut imeni Lensoveta.

PAVLUSHENKO, I.S.; BRAGINSKIY, L.N.

Specific number of revolutions made by a mixer in a liquid - liquid system.
Zhur.prikl.khim. 36 no.2:322-328 F '63. (MIRA 16'3)

1. Leningradskiy tekhnologicheskoy institut imeni Lensovetu i Laboratoriya
peremeshivayushchikh ustroystv Leningradskogo filiala Vsesoyuznogo
nauchno-issledovatel'skogo i konstruktorskogo instituta khimicheskogo
mashinostroyeniya.

(Liquids)

(Mixing)

BRAGINSKIY, L.N.; PAVLOCHENKO, I.S.

Relation between the factor of surface renewal and the conditions
of mixing in Lewis' cell. Zhur.prikl.khim. 38 no.6:1290-1295 1a
'65. (NIP, 18 10

1. Leningradskiy nauchno-issledovatel'skiy institut khimicheskoye
mashinostroyeniya.

SOV/124-58-3-2891

Translation from: Referativnyy zhurnal. Mekhanika, 1958, Nr 3, p 48 (USSR)

AUTHORS: Pavlushenko, I. S., Polishchuk, E. R.

TITLE: A New Nomogram for the Determination of Frictional Pressure Losses (Novyy raschetnyy grafik dlya opredeleniya poter' davleniya na treniye)

PERIODICAL: Tr. Leningr. tekhnol. in-ta im. Lensovet, 1957, Nr 39, pp 204-215

ABSTRACT: The authors are of the opinion that the application of Euler's criterion instead of the use of the coefficient of resistance λ is more convenient and affords more general applicability. As a basis for the calculation, the authors take the criterial equation describing the motion of the flow in the pipe, as expressed in the form of

$$E = C R^m \Gamma_1 \Gamma_2^n$$

Here

$$E = \Delta p / \rho w^2 \quad \Gamma_1 = L/d, \quad \Gamma_2 = e_e/d, \text{ and}$$

Card 1/2

SOV/124 58-3-2891

A New Nomogram for the Determination of Frictional Pressure Losses

Γ_2 is the relative roughness. For practical calculations the authors recommend the use of the generalized nomogram $E=f(R, \Gamma_2)$, constructed over a wide range of the Reynolds number R . In the compilation of this nomogram various formulae by other authors were used for the determination of the coefficient of hydraulic resistance in pipes with smooth and rough walls for the turbulent flow regime (Blasius, Nikuradze, Konakov, Filonenko, Murin, Shevelev, Colbrook, and Al'tschul'). It was assumed that for $\Gamma_2 = 1$ we have $E = \lambda/2$. By employing the generalized nomogram the authors offer a comparative evaluation of the use of many formulae for the determination of λ and a number of recommendations for their application. Bibliography: 8 references.

V. I. Gotovtsev

Card 2/2

YANISHCHVSKIY, A.V.; PAVLUSHENKO, I.S.

Determination of the interphase surface of an emulsion. Zhur. prikl.
khim. 31 no.8:1215-1220 Ag '58. (MIRA 11:10)

1.Leningradskiy tekhnologicheskii institut imeni Lensoвета.
(Emulsions)

PAVLUSHENKO, I.S.; YANISHEVSKIY, A.V.

Number of revolutions of a stirrer during mixing of two mutually
insoluble liquids. Zhur. prikl. khim. 31 no.9:1348-1354 S '58.
(MIRA 11:10)

Leningradskiy Tekhnologicheskii institut imeni Lensoвета.
(Mixing)

PAVLUSHENKO I.S.
USSR /Chemical Technology. Chemical Products
and Their Application
Processes and Apparatus for Chemical Technology

H-2

Abs Jour: Referat Zhur - Khimiya, No 1, 1958, 1503

Author : Pavlushenko I.S., Polishchuk E.R.

Inst : Leningrad Technological Institute imeni Lensovet

Title : New Computation Graph for Determining Frictional
Pressure Losses.

Orig Pub: Tr. Leningr. tekhnol. in-ta im. Lensoveta, 1957,
No 39, 204-215

Abstract: A comparison is made of the calculation equations
derived by a number of investigators for deter-
mining the coefficient of external friction λ in
pipe lines, and it is shown that most of the corre-
lations yield results that are in good agreement.

Card 1/2

USSR /Chemical Technology. Chemical Products
and Their Application
Processes and Apparatus for Chemical Technology

H-2

A general graph has been plotted for the correla-
tion between criterion Eu and Re (up to $Re = 10^6$).
For the turbulent and the automodel regions 5
curves have been plotted which correspond to the
different values of relative roughness (from
 10^{-2} to 10^{-4}) and also a curve for smooth pipes.
The plotted curves correspond to the averaged
values of Eu criterion, calculated on the basis
of the equations being compared. It is shown
that in scope of applicability and simplicity of
calculations, the most convenient is the equation
of Filonenko: $\lambda = 0.302(\lg Re - 0.903)^{-2}$.

Card 2/2

PAVLUSHENKO, I.S.

USSR/Processes and Equipment for Chemical Industries -
Processes and Apparatus for Chemical Technology.

K-1

Abs Jour : Ref Zhur - Khimiya, No 2, 1957, 6910

Author : Pavlushenko, I.S.

Inst :

Title : Free Motion of Single Particles in a Stationary Boundless Medium.

Orig Pub : Zh. prikl. khimii, 1956, 29, No 6, 885-898

Abst : By utilizing the theory of similarity and the theory of dimensionality there have been derived, from the differential equation defining uniform motion of an elemental solid particle in a stationary boundless medium, 6 distinct criterial equations which make possible an equivalent, in principle, definition of the phenomenon of precipitation. Of these equations the most convenient for determination of the velocity and for ascertaining the size of the particle is the equation of the form:

Card 1/3

USSR/Processes and Equipment for Chemical Industries. K-1
Processes and Apparatus for Chemical Technology.

Abs Jour : Ref Zhur - Khimiya, No 2, 1957, 6910

Calculations based on the use of the experimental curve
yield somewhat more accurate results than those made in
accordance with the proposed formulas.

Card 3/3

AUTHORS: Pavlushenko, I.S., Kostin, N.M.

32-24-4-60/67

TITLE: Construction of a Sample-Taking Device (Konstruktsiya probotbornika)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 4, pp. 501-502 (USSR)

ABSTRACT: The following device is recommended for taking samples of suspensions: Two rubber plates are fastened to a holding ring; they are re-enforced by two metal disks each which fit tightly into a cylinder in which they can be moved up and down, so that a sort of pumping effect is attained. The axis of the holding ring to which the plates are fastened, passes through a sealed tube at the upper end of the cylinder bottom, while the lower plate protrudes into the suspension so that in this way the space between the plates is filled with the suspension. After a short period (5-10 seconds) the space between the plates is closed by quickly moving down the cylinder and the device is taken out. The suspension located between the plates in the cylinder can then be taken out. Before using the sample-taking device calibration can be carried out by measuring the interspace with water or by

Card 1/2

Construction of a Sample-Taking Device

32-24-4-60/67

weighing the device when full or empty respectively. It was found in practice that the error limit of this method of taking samples does not exceed 3% (relative). Laboratory mechanic I.V. Povorov assisted in working out the construction. There is 1 figure.

ASSOCIATION: Leningradskiy tekhnologicheskii institut im. Lensovet
(Leningrad Technological Institute imeni Lensovet)

1. Solutions--Sampling
2. Solutions--Testing equipment

Card 2/2

Pavlushenko, I. S.

ROMANKOV, P.G., dotsent kandidat tekhnicheskikh nauk; PAVLUSHENKO, I.S.,
kandidat khimicheskikh nauk

Calculating the power consumption of mixers. Khim.prom.no.10:292-
297 0'47. (MLRA8:12)

1. Leningradskiy tekhnologicheskii institut imeni Lensoveta
(Mixing machinery)

PAVLUSHENKO, I. S.

Chemistry, Leningrad Technol. Inst.

"Preparation of Perylenetetracarboxylic Acid," ZHUR. Obshch.
Khim., 17, 1947.

PAVLUSHENKO, I.S.

Free motion of single particles in a stationary inorganic medium.
Zhur.prikl.khim.29 no.6:885-898 Je '56. (MIRA 9:9)

Leningradskiy tekhnologicheskii institut imeni Lensovet.
(Particles)

PAVLUSHENKO, I. S., BRAUNSHTEIN, L. N., SEMENOV, N. N. and ROMANOV, P. G.

"Effect of mechanical mixing on mass-exchange processes during chemical changes."

Report presented at the 1st All-Union Conference on Heat- and Mass- Exchange, Minsk, BSSR, 5-9 June 1961

COMMON ELEMENTS										COMMON VARIABLE WORDS									
CA Calculations of power consumption of mixers. P. G. Romanov and I. S. Panyushenko. <i>Khim. Prom.</i> 1947, No. 10, 8-13. — A theoretical analysis of the work of mixers and hydromechanics leads to 3 equations for the work done by mixers. For propeller mixers at $Re < 25-50$, i.e. in the region of laminar flow, the power on the mixer shaft (N) is given by $N = 230 \rho^{-0.5} \mu^{1.5} n^3 d^5$ kg. m./sec. For $50 < Re < 10^5$, i.e. in the regions of transition and of turbulent flow, $N = 0.845 \rho^{0.75} \mu^{0.25} n^3 d^5$ kg. m./sec. where ρ is the density of the liquid in kg. sec.²/m.³, μ is the abs. viscosity in kg. sec./sq. m., n revolutions per sec. of stirrer, and d is the diam. of the mixer in m. M. Horch																			
ASD-31A METALLURGICAL LITERATURE CLASSIFICATION										FROM SOURCE									
SOURCE SYMBOL										CLASSIFICATION									
100000 110 000 001										100000 110 000 001									
100000 110 000 001										100000 110 000 001									

PAVLUSHENKO, I.S.; KOSTIN, N.M.

Sampler construction. Zav.lab. 24 no.4:501-502 '59. (MIRA 11:4)

1. Leningradskiy tekhnologicheskiy institut im. Lensovet.
(Sampling)

PAVLUSHENKO, I.S.

"Stirring in the chemical industry" by Z. Stêrbácák, P. Taufk.
Reviewed by I.S. Pavlushenko. Zhur. prikl. khim. 34 no.1:234-235
Ja '61. (MIRA 14:1)

(Mixing machinery)

SMIRNOV, N.N.; PAVLUSHENKO, I.S.; ROMANKOV, P.G.

Dependence of the reaction rate on the nature of interacting substances and on the degree of conversion during mechanical mixing.
Zhur.prikl.khim. 35 no.1:90-95 Ja '62. (MIRA 15:1)

1. Leningradskiy tekhnologicheskii institut imeni Lensovetu.
(Mixing) (Chemical reaction, Rate of)

PAVLUSHENKO, I.S.; SMIRNOV, N.N.; ROMANKOV, P.G.

Effect of stirring on the process of chemical conversion. Zhur.
prikl. khim. 34 no.2:312-319 F '61. (MIRA 14:2)

1. Leningradskiy tekhnologicheskii institut imeni Lensoveta.
(Chemical reaction—Conditions and laws)

SECRETARY OF DEFENSE, WASHINGTON, D.C.

MEMORANDUM FOR THE SECRETARY OF DEFENSE
SUBJECT: [Illegible]

1. [Illegible]
2. [Illegible]
3. [Illegible]

NIKOL'SKIY, Ye.N., doktor tekhn.nauk, prof.; PAVLUSHIN, G.P., inzh.; SHIL'KOV,
V.I., inzh.

Longitudinal load test of a model of the body of ER-10 electric
train cars. Trudy BITM no.21:10-18 '64.

(MIRA 12:8)

DAVIDILIN, G.I., aspirant

Using the generalized force method for calculating the body
model of a railroad passenger car. Izv. vys. ucheb. zav.
mashinostr. no.6:127-134, 1955. (MIRA 18:8)

PAVLUSHIN, P.Ya., kand. sel'khoz. nauk, red.; KAZAKOV, N., red.

[Instructive practices, advice, recommendations] Pouchi-
tel'nye opyty, sovety, rekomendatsii. Smolensk, Smolen-
skoe knizhnoe izd-vo, 1961. 55 p. (MIRA 17:7)

PAVLUSHKIN, N.M.; SENTYURIN, G.G.

I.I. Kitaigorodskii's seventieth anniversary. Trudy MKHTI no.27:
3-5 '59.

(MIRA 15:6)

(Kitaigorodskii, Isaak Il'ich, 1888-)

PAVLUSHKIN, N.M.; RUTBERG, L.G.

Enamels for aluminum. Trudy MKHTI no.27:98-104 '59. (MIRA 15:6)
(Enamel and enameling) (Aluminum)

PAVLUSHIN, P. Ya.

Pavlushin, P. Ya. "Artificial Methods of Detecting Varieties of Flax Resistant to Diseases," Rashchita kasheni, no. 11, 1954, pp. 30-33. 1954:11:30-33

So: SIA - 90-53, 15 Dec 1953

*Research Areas:
Synthetic Rubber and
Rubber Abstracts*

*Synthetic Rubber and
Related Products*

Polymerization of vinyl acetate. M. V. POLYAKOV,
V. V. PAVLENKO, and L. P. KOZINSKO (Dokl.
Akad. Nauk SSSR, 1918, 62, 1013). (Chem.
Abstr. 1919, 43, 1180). The kinetics of the poly-
merization of vinyl acetate as a function of the
initial temperature and of the amount of benzoyl
peroxide added were investigated by the pro-
cedure of measuring the temperature rise in a
tube. Temperature was stopped after induction
and induction period. With increasing amount of per-
oxide or with increasing amount of benzoyl peroxide
the length of the induction period decreases first
rapidly, then very slowly. The viscosity of the
final polymer varies with the initial temperature
and with the amount of benzoyl peroxide in the
same way as the induction period. Consequently
polymerization of vinyl acetate is an autocatalytic
explosive process. 3821 24 174

1949

✓

31

Polymerization of vinyl acetate. M. A. Polyakov, A. Ya. Pavlushina, and I. P. Kozlovskiy. *Doklady Akad. Nauk SSSR* 62, 101-3 (1949). The kinetics of the polymerization of vinyl acetate as a function of the initial temp. (between 65 and 85 °) and of the amt. of Bz_2O_2 added (between 1 and 3%) were investigated by the spontaneous rise of temp. measured with an accuracy of $\pm 0.02^\circ$ in sealed tubes of 11 mm diam. surrounded by an adiabatic jacket evacuated to 10^{-3} mm Hg. Both with a const. amt. of Bz_2O_2 and varying initial temp., and at a const. initial temp. and varying amt. of the catalyst, the curves of rise of temp. against time have an outspoken autocatalytic shape, the temp. rising steeply after an initial induction period. The dependence of the length of the induction period on the initial temp., and its dependence on the amt. of Bz_2O_2 , are analogous. With increasing initial temp., or with increasing amt. of Bz_2O_2 , the length of the induction period decreases first rapidly, then very slowly. The viscosity of the final polymer varies with the initial temp. and with the amt. of Bz_2O_2 in the same way as the induction period. Consequently, polymerization of vinyl acetate is an autocatalytic explosive process. The analogy of the dependence of the induction period on the initial temp. and on the amt. of the catalyst is an evidence of the chain mechanism prevailing during the induction period, and going over into a thermal explosive process under adiabatic conditions. N. Thon

AND 11.4 METALLURGICAL LITERATURE CLASSIFICATION

USSR/Chemistry - Acetic Acid, Vinyl Esters Sep 48
Chemistry - Polymerization

"Studies of the Polymerization of Vinyl Acetates,"
M. V. Polyakov, A. Ya. Pavlushina, T. P. Korniyenko,
3 pp

"Dokl Ak Nauk SSSR" Vol XIII, No 1

PA 35/49714
Studied polymerization of vinyl acetate in presence
of benzoyl peroxide to test authors' theory. Ac-
cording to this theory, the chain mechanism of the
reaction is converted into a detonation mechanism as
a result of chain rupture, which is thought to have
application to the mechanism of formation of oxides
of nitrogen in explosions of combustible mixtures.

35/49714

USSR/Chemistry - Acetic Acid, Vinyl Sep 48
Esters (Contd)

Experiments in sealed tubes kept in evacuated wider
tubes showed that polymerization of vinyl acetate is
an autocatalytic explosive process, and that changes
in the induction period and viscosity of polymers,
as dependent upon some factors, indicate that a
chain mechanism of polymerization obtains through-
out the induction period. Interprets this and other
regularities observed as support for above-stated
view. Submitted by Acad N. M. Semenov, 1 Jul 48.

PAVLUSHINA, A. YA.

35/49714

PAVLUSHINA, A. YA.

PA 55/49T22

USSR/Chemistry - Vinyl Acetate
Chemistry - Polymerization

Nov 48

"Influence of Surface on the Polymerization of Vinyl Acetate," A. Ya. Pavlushina, M. V. Polyakova, 2 pp

"Dok Ak Nauk BSSR" Vol LXIII, No 3

Relationship discovered between rate of polymerization of vinyl acetate and size of surface of a solid phase leads to a conclusion as to heterogeneous-homogeneous mechanism of this process. It may be assumed to be characteristic also in polymerization of other substances in a fluid phase. Submitted by Acad N. N. Semonov 27 Jul 48

55/49T22

CA

Kinetics and mechanism of polymerization of vinyl acetate. M. V. Polyakov, A. S. Pavlushina, I. P. Kozmenko, and V. V. Shalya (Inst. Phys. Chem. Acad. Sci. Ukr. S.S.R., Kiev.). *Zhur. Fiz. Khim.* **25**, 617, 51 (1951). The rate of polymerization of vinyl acetate catalyzed by benzoyl peroxide, was studied in a thermally insulated vessel to investigate the autocatalysis of the chain reaction under conditions of possible thermal explosion (cf. Schulz and Blaschke, *C.A.* **36**, 40129). The reaction was followed by means of a thermocouple. The av chain length L of the product was detd. viscometrically. The time-temp. curves first show a slight upward trend during the induction period τ , then an abrupt rise of about 18% during 1 to 3 min. The value of τ (min.) decreases with increasing initial temp. t_0 . Thus for $t_0 = 65, 70, 80$, and 85° , $\tau = 42, 18, 15$, and 10 , resp. With increasing catalyst concns. (1, 1.5, 2, 3, and 1%), τ decreases as well. For a const. t_0 (38, 17, 12, 8, 4). For $t_0 = 50, 60, 65, 70, 80$, and 85° , $L = 310, 210, 140, 125, 114$, and 116 . For 0.5, 1.0, 1.5, 2.0, 3.0, and 4.0% of catalyst, $L = 371, 191, 125, 107, 80$, and 98 , at const. t_0 . Expts. with a vessel of 20 mm diam. contg. 7 cc. of monomer (1% catalyst) led to an explosion with destruction of the vessel after $\tau \approx 80$ min. All expts. reported above were thus made in a 10 mm vessel contg. 3 to 6 cc. Then sharp autocatalysis took place but without explosion. This indicates an effect of vessel diam. and quantity of monomer on the kinetics of polymerization. Michel Boudart

PAVUSINA, A.Ya.

Producing coumarone-polyene dyes. Bul. terr.-econ. info.
no. 5:12-14 '69. (Mik. 11:7)

(Dyeing dils)

PAVLUSHINA, A.Ya.. kand.khim.nauk

Improving the formulas of coumarone-polydien paints. Trudy
NIIMesttoproma no.17.15-80 '62. (MIRA 16:5)
(Paint) (Drying oils) (Benzofuran)

1ST AND 2ND LETTERS										3RD AND 4TH LETTERS										5TH AND 6TH LETTERS									
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z										A B C D E F G H I J K L M N O P Q R S T U V W X Y Z										A B C D E F G H I J K L M N O P Q R S T U V W X Y Z									
C										Tishchenko glass. N. M. PAVLUSHKIN. <i>Sibiri i Kavkaz</i> , 6 [11] 3-5 (1949).—P. gives a historical review in connection with the 50th anniversary of the development of Russian chemical glass by E. V. Tishchenko. This glass, known in the Soviet Union as glass No. 23, analyses SiO_2 68.47, Al_2O_3 3.48, B_2O_3 2.40, CaO 8.38, MgO 0.81, Na_2O 9.66, and K_2O 6.10%. Priority is claimed in the use of B_2O_3 in glassmelting. H.Z.K.										1ST AND 2ND LETTERS 3RD AND 4TH LETTERS 5TH AND 6TH LETTERS 7TH AND 8TH LETTERS 9TH AND 10TH LETTERS 11TH AND 12TH LETTERS 13TH AND 14TH LETTERS 15TH AND 16TH LETTERS 17TH AND 18TH LETTERS 19TH AND 20TH LETTERS 21ST AND 22ND LETTERS 23RD AND 24TH LETTERS 25TH AND 26TH LETTERS 27TH AND 28TH LETTERS 29TH AND 30TH LETTERS 31ST AND 32ND LETTERS 33RD AND 34TH LETTERS 35TH AND 36TH LETTERS 37TH AND 38TH LETTERS 39TH AND 40TH LETTERS 41ST AND 42ND LETTERS 43RD AND 44TH LETTERS 45TH AND 46TH LETTERS 47TH AND 48TH LETTERS 49TH AND 50TH LETTERS 51ST AND 52ND LETTERS 53RD AND 54TH LETTERS 55TH AND 56TH LETTERS 57TH AND 58TH LETTERS 59TH AND 60TH LETTERS 61ST AND 62ND LETTERS 63RD AND 64TH LETTERS 65TH AND 66TH LETTERS 67TH AND 68TH LETTERS 69TH AND 70TH LETTERS 71ST AND 72ND LETTERS 73RD AND 74TH LETTERS 75TH AND 76TH LETTERS 77TH AND 78TH LETTERS 79TH AND 80TH LETTERS 81ST AND 82ND LETTERS 83RD AND 84TH LETTERS 85TH AND 86TH LETTERS 87TH AND 88TH LETTERS 89TH AND 90TH LETTERS 91ST AND 92ND LETTERS 93RD AND 94TH LETTERS 95TH AND 96TH LETTERS 97TH AND 98TH LETTERS 99TH AND 100TH LETTERS									
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Pavlovskii, N.M.

168/12/9

621.9.02

Synthetic Extra-Strong Mineral:
Microlite

Steklo i Keram.
(11), 4-7
1953
U.S.S.R.

Math
4
0
2

I.I. Kitaigorodskii,
N.M. Pavlovskii

Research into the problem of metal cutting with non-metallic tools produced a synthetic mineral ecrunda type material of extra great strength called microlite. Characterized by its compact crystal arrangement, very thin inter-crystalline layers and extreme fineness of individual crystals, it was found to surpass all known tool materials in physical and mechanical properties, with the exception that it proved to be more brittle. It has consequently been used in operations free of shock load. The numerous and increasing applications of this ceramic material in cases requiring great wear resistance at high temperature were discussed. (OT/1615).

(Ass. Tech. Services Transl., (RJ-175), 8pp., U.S.A.) *MM*

LFH

PAVLUSHKIN, N. M.

USSR/ Chemistry - Boronless glass

Card 1/1 Pub. 104 - 4/14

Authors : Pavlushkin, N. M.

Title : Some physico-chemical properties of stable boronless glasses

Periodical : Stek. i ker. 11/3, 10-13, Mar 1954

Abstract : A description is given of experiments conducted to discover a formula for a glass that would withstand heat and meet other requirements for glass used in making laboratory utensils, but containing no boron hydroxide, previously considered essential. Quantitative and qualitative details are given of formulas used in the experiments with graphs illustrating their stability when subjected to the various tests. Tables; graphs.

Institution:

Submitted:

Pavlushkin, N. M.

15
3
1 PM
2
✓ Characteristics of corundum mikrolit. I. I. KITALGORONSKIY
AND N. M. PAVLUSHKIN. Steklo i Keram., 12 [11] 16-21 (1955).
Microphotographs show that the structure of corundum
mikrolit differs considerably from that of ordinary corundum
materials. 5 figures. Cf. Ceram. Abstr., 1955, April, p. 61f.
B.Z.K.
PM mt

(M)
PAVLUSHKIN, N., kandidat tekhnicheskikh nauk

NAUCHNOE SODERZHANIE

Flame resistant glass. Znan.sila 30 no.7:6-9 J1'55. (MIRA 8:10)
(Glass)

AVRASIN, Ya.D., kandidat tekhnicheskikh nauk; BERG, P.P., professor, doktor tekhnicheskikh nauk, BERNSHTEYN, M.L., kandidat tekhnicheskikh nauk; GENEROZOV, P.A., starshiy nauchnyy sotrudnik; GLINER, B.M., inzhener; DAVIDOVSKAYA, Ye.A., kandidat tekhnicheskikh nauk; YELCHIN, P.M., inzhener; YEREMIN, N.I., kandidat fiziko-matematicheskikh nauk; IVANOV, D.P., kandidat tekhnicheskikh nauk; MNOROV, L.I., inzhener; KOBIN, M.M., kandidat tekhnicheskikh nauk; KORITSKIY, V.G., dotsent; KROTKOV, D.V., inzhener; KUDRYAVTSEV, I.V., professor, doktor tekhnicheskikh nauk; KULIKOV, I.V., kandidat tekhnicheskikh nauk; LEPETOV, V.A., kandidat tekhnicheskikh nauk; LIKINA, A.F., inzhener; MATVEYEV, A.S., kandidat tekhnicheskikh nauk; MIL'MAN, B.S., kandidat tekhnicheskikh nauk; PAVLUSHEV, N.M., kandidat tekhnicheskikh nauk; PITTSYN, V.I., inzhener [deceased]; RAKOVSKIY, V.S., kandidat tekhnicheskikh nauk, RAKHSHTADT, A.G., kandidat tekhnicheskikh nauk; RYABCHENKOV, A.V., professor, doktor khimicheskikh nauk; SIGOLAYEV, S.Ya., kandidat tekhnicheskikh nauk; SMIRYAGIN, A.P., kandidat tekhnicheskikh nauk, SUL'KIN, A.G., inzhener; TUTOV, I.Ye., kandidat tekhnicheskikh nauk, KHRUSHCHOV, M.M., professor, doktor tekhnicheskikh nauk; TSYPIN, I.O., kandidat tekhnicheskikh nauk; SHAROV, M.Ya., inzhener; SHERMAN, Ya.I., dotsent; SHMELEV, B.A., kandidat tekhnicheskikh nauk; YUGANOVA, S.A., kandidat fiziko-matematicheskikh nauk; SATEL', E.A., doktor tekhnicheskikh nauk, redaktor; SOKOLOVA, T.F., tekhnicheskiy redaktor

[Machine builder's reference book] Spravochnik mashinostroitel'ia; v shesti tomakh. izd-vo mashinostroit. lit-ry. Vol.6. (Glav. red.toma E.A.Satel'. Izd. 2-oe, ispr. 1 dop.) 1956. 500 p. (MLRA 9:8)
(Machinery--Construction)

PAVLUSHKIN, N. M.

15
813. The production of high-strength corundum. N. M. PAVLUSHKIN (Glass & Ceramics, Moscow, 13, No. 11, 19, 1956). In Russian. A literature survey (chiefly Western). If the initial material contains 40-70% of grains $\sim 0.5\mu$, and the amount of finer additions is 0.5-1.0%, then small products can be successfully fired in 5-10 min at 1,670°-1,750°, or 1-2 min at 1,780°-1,820°. Tests showed that prolonged firing at a low temperature is less successful than rapid firing at a high temperature. (8 figs.)

2
1/10/77
Matters

cm
line

Prilozhenie 1
PAVLUSHKIN, N.M.; SENTYURIN, G.G.; SIL'VESTROVICH, S.I., kand.tekhn.
nauk, nauchnyy red.; GLADYSHEVA, S.A., red.; GILENSON, P.G.,
tekhn.red.

[Handbook of glass technology] Praktikum po tekhnologii stekla.
Moskva, Gos.izd-vo lit-ry po stroit.materialam, 1957. 354 p.
(MIRA 11:1)

(Glass)

PAVLYSHKIN, N. M.

15
 754. Strength of sintered corundum. N. M. PAVLYSHKIN (Glass and Ceramics, Moscow, 14, No. 7, 14, 1957). In Russian. Tests were made on the crushing-strength and transverse strength of polished and etched specimens of corundum. The size of the specimen, the number of surface and internal defects, and the testing conditions affected the results. Specimens fired in a gas kiln, under conditions normal for Microlite showed an average crushing-strength of 220 t/in.². The average transverse strength of pure corundum specimens was about 9 t/in.² and that of sintered corundum modified by MgO was about 29 t/in.² (7 tables.)

2
 4E20

gag

25(1)

AUTHORS: Pavlushkin, N.M., Sentyurin, G. G.

SOV/72-58-12-20/23

TITLE: Practical Course on Glass Technology
(Praktikum po tekhnologii stekla)

PERIODICAL: Steklo i keramika, 1958, Nr 12, pp 43-44 (USSR)

ABSTRACT: This is a discussion of this book by the reviewers L.Ya. Lazeev,
L.A. Zhunina, N.N. Yermolenko.

Card 1/1

SOV/72-59-1-4/10

15(6)

AUTHOR: Pavluskin, N. M.

TITLE: The Influence of Dispersion on the Sintering of Corundum
(Vliyaniye dispersnosti na spekaniye korunda)

PERIODICAL: Steklo i keramika, 1959, Nr 1, pp 11-15 (USSR)

ABSTRACT:

From a theoretical as well as practical point of view it is very important to obtain highly pulverized industrial alumina and to test its reaction on vitrification. Table 1 shows the dispersion change of industrial alumina, baked at 1450°, according to the enlargement of the grinding surface of the steel balls (d=5.5 mm). Aluminum oxide under four different heating treatments was used as initial material: industrial alumina, type GO ordinary, red hot at 1100°; the same alumina baked at 1450° during 2 hours; the same alumina baked at 1650°; the same alumina molten at a temperature of about 2000° (white electro-corundum). The industrial alumina and the electro-corundum were ground in a steel mill by means of small steel balls (d=5.5 mm). By welding a hard alloy of the type T-620 to the inside of the mill cylinder it had been given a wear-resistant coating. D. M. Poluboyarinov, R. Ya. Boyil'skiy, and T. V. Malshova tested the pulverization condi-

Card 1/3

SOV/72-55-1-4/10

The Influence of Dispersion on the Sintering of Corundum

tions of ordinary, additionally not baked alumina (Ref. 1). Table 2 shows the data of alumina dispersion with a varying number of grinding balls compiled by the author of this article. The variation of the fineness degree of grinding alumina on changing heat treatment and changing grinding duration is shown in table 3 and the figure. The performance of the four types of alumina on vitrification can be seen in table 4. On equal dispersion alumina baked at higher temperatures ($1630-1750^{\circ}$) vitrifies better than the one baked at 1450° , as has been proved in the previous papers by G. A. Vydrík. In some papers V. L. Kalkevich and G. A. Vydrík stress the fact that ordinary alumina vitrifies less easily than alumina baked at 1450° . This is not in accordance with the test made by the author and can be explained by the fact that at present a considerably higher degree of dispersion can be attained. Conclusions: The grinding process can be intensified by using more grinding balls; the pulverization degree of the various types of industrial alumina depends directly on its heat treatment; with sufficient pulverization the vitrification of various types of alumina does not differ considerably as to temperature and duration.

Card 2,3

The Influence of Dispersion on the Sintering of Corundum SOV/72-59-1-4/16

There are 1 figure, 4 tables, and 1 Soviet reference.

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskij institut imeni
Mendeleyeva
(Moscow Chemo-Technological Institute imeni Mendeleyev)

Card 3/3

SOF'INA, V.V.; PAVLOVSKAYA, N.G. (Moskva)

Equilibrium states in Ti - H and Zr - H systems at low pressures.
Zhur.fiz.khim. 34 no.5:1104-1109 My '60. (MIRA 13:7)
(Titanium) (Zirconium) (Hydrogen)

PHASE I BOOK EXPLOITATION SOV/5748

Pavlushkin, Nikolay Mikheyevich, Doctor of Technical Sciences.

Spechenyy kerund (Sintered Corundum) Moscow, Gosstroyizdat,
1961. 208 p. Errata slip inserted. 1500 copies printed.

Ed. of Publishing House: E. A. Gurvich; Tech. Ed.: L. M.
Osanko.

PURPOSE : This book is intended for technical and scientific personnel concerned with the production and use of sintered corundum in industry.

COVERAGE: The role of synthetic sintered corundum in various branches of industry is discussed. The properties and methods of producing sintered corundum are described, and the areas of application of sintered corundum are reviewed in detail. Information on sintered corundum, available in literature, is generalized, as are the experimental investigations performed by the author at the MKhTI imeni Mendeleev. There are 361

~~Card 1/5~~

L 11169-66 EWP(e)/EWT(m)/EWP(h)/ETC(m) WH/WH
ACC NR: AP6000369 44 44 SOURCE CODE: UR/0286/65/000/021/0077/0077

AUTHORS: Pavlushkin, N. M.; Zhuravlev, A. K. 55 Q

ORG: none 6,44

TITLE: Enamel for coating glass. Class 48, No. 176153 15

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 21, 1965, 77

TOPIC TAGS: paint, protective coating, glass, lead oxide, silicon dioxide, boron compound, sodium compound

ABSTRACT: This Author Certificate presents an enamel for coating glass. The enamel contains lead oxide, quartz,¹⁵ and boric anhydride. To increase its alkalinity and its adhesion to glass, the enamel contains (wt %): PbO 60--70; SiO_2 30--40; B_2O_3 up to 10; Na_2O up to 15.

SUB CODE: 11/

SUBM DATE: 18Apr64

60
Card 1/1

UDC: 666.293.5

L 24355-66 EWP(e)/EWT(m)/T/EWP(t) IJP(c) JD/WW/WH

ACC NR: AP6007261 (A) SOURCE CODE: UR/0363/66/002/002/0376/0379

AUTHOR: Kitaygorodskiy, I.I. (Deceased); Pavlushkin, N.M.; Petrov, S.V.

ORG: Moscow Chemico-technological Institute im. D.I.Mendeleev
(Moskovskiy khimiko-tekhnologicheskii institut)

TITLE: Effect of phase composition and structure of slag-microcrystalline glasses (Pyrocerams) on some of their physico-chemical properties

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 2, 1966, 376-379

TOPIC TAGS: glass property, phase composition, crystal structure

ABSTRACT: In most cases, slag Pyrocerams are polycrystalline materials in which the role of the cementing layer is played by the glass phase. However, with an increase in the amount of the glass phase, the strength of the material decreases. In addition, the bending strength is a function of the heat treatment conditions (for example, for one of these materials the average measured strength varied from 1000 to 1900 kg/cm²). Study of only one parameter of these materials, for example the character of the change in density, cannot fully explain the structural changes taking place during crystallization of the glass. The article presents a table listing the properties of several of the slag Pyrocerams. A

Card 1/2

UDC: 666.1:542.65

L 24355-66

ACC NR:

AP6007261

second table gives the resistance of several types to sulfuric acid solutions. Orig. art. has: 4 figures and 2 tables.

SUB CODE: 07.11/ SUBM DATE: 27Sep65/ ORIG REF: 001/ OTH REF: 001

Card 2/2 *plu*

L 08448-67 EWP(c)/EWT(m) WH

ACC NR: AP6030773

SOURCE CODE: UN/0363/66/002/009/1626/1629

AUTHOR: Pavlushkin, N. M.; Al'takh, O. L.; Prudnikov, V. N.

ORG: Chemical Engineering Institute im. D. I. Mendeloyov (Khimiko-tekhnologicheskii institut)

TITLE: Paramagnetism of Dy^{3+} and Gd^{3+} ions in silicate glasses

SOURCE: AN SSSR. Izvestiya. Neorganicheskkiye materialy, v. 2, no. 9, 1966, 1626-1629

TOPIC TAGS: dysprosium, gadolinium, silicate glass, paramagnetism

ABSTRACT: The purpose of the study was to determine the effect of the concentration of paramagnetic ions and temperature on the magnetic properties of glasses containing Gd^{3+} and Dy^{3+} ions. The magnetic susceptibility of the glasses was measured by the Faraday method in the 80-750°K range at a magnetic field strength of 15000 Gs. The experimental values of the effective number of Bohr magnetons for Dy^{3+} and Gd^{3+} were found to be close to the calculated ones, indicating that the paramagnetism of the glasses containing Dy^{3+} is related not only to the spin moment but also to the orbital moment, which is not frozen by the inhomogeneous electric fields created by the ions of the framework. The data show that a change in the concentration of the paramagnetism carriers in the glass composition has practically no effect on the magnitude of the magnetic moment; this is because the Dy^{3+} or Gd^{3+} ions are in a state in which the interaction between the paramagnetic ions is weak, i. e., the glass framework is

Cord 1/2

UDC: 666.01:538.113

L 08448-67

ACC NR: AP6030773

a strongly dispersing solvent. Some additional silicate glasses containing several rare earth elements were studied, and Wiedemann's additivity law was found to apply to them. The use of this law permits one to determine in advance the magnetic susceptibility of such glasses. Orig. art. has: 2 figures, 3 tables and 5 formulas.

SUB CODE: 07,20/ SUBM DATE: 10Nov65/ ORIG REF: 002/ OTH REF: 001

Card 2/2

L 32075-66 EWT(l)/EWP(e)/EWT(m)/T/EWP(t)/ETI IJP(c) JD/WV/LHB/WH
ACC NR: AP6013351 (A) SOURCE CODE: UR/0363/66/001/004/0726/0737

AUTHOR: Kitaygorodskiy, L. L. (Deceased); Paylushkin, N. M.; Khodakovskaya, R. Ya. +7

ORG: Moscow Chemical Engineering Institute im. D. I. Mendeleev (Moskovskiy khimikotekhnologicheskii institut) B

TITLE: Possibility of applying the method of quantitative x-ray phase analysis to vitreous-crystalline materials 2/

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 4, 1966, 726-737

TOPIC TAGS: phase analysis, x-ray diffraction analysis, quartz, glass

ABSTRACT: The object of the study was to work out a technique for quantitatively determining the composition of crystalline phases in pyroceramic materials. Because of its simplicity, rapidity, and popularity, the method of quantitative x-ray phase analysis was chosen. Two variants of this method were used: (1) direct measurement of the intensity of diffraction reflection (plotting of calibration graph in the coordinates I vs. % of crystalline phase), (2) internal standard (plotting of calibration graph in the coordinates I/I_{st} vs. % of crystalline phase). A quantitative x-ray phase analysis was carried out on pyroceramic material of the $SiO_2-Al_2O_3-MgO$ system containing three crystalline phases: quartz, spinel, and rutile, and both variants were shown to yield satisfactory results. Because of the characteristics of the pyroceramic structure, more accurate data on the content of crystalline phases are provided by measurements of the integral intensity (area under the peak). The results of the x-ray phase analysis

Card 1/2

UDC 661.1:542.65

L 32075-66

ACC NR: AP6013351

were confirmed by data obtained from chemical phase analysis. Orig. art. has: 6 figures, 3 tables, and 3 formulas.

SUB CODE: 11 / SUBM DATE: 19Jul65 / ORIG REF: 016 / OTH REF: 010

Card 2/2 *SLC*

L 30245-66 EWT(m)/EWP(e) WH

ACC NR: AP6011325 (A)

SOURCE CODE: UR/0363/66/002/003/0553/0559

AUTHOR: Pavlushkin, N. M.; Chernyakova, R. M.

ORG: Moscow Institute of Chemical Technology im. D. I. Mendeleev (Moskovskiy khimiko-
tekhnologicheskii institut)

TITLE: Investigation of the kinetics of burning out sulfides from blast-furnace
glasses

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 3, 1966, 553-559

TOPIC TAGS: sulfide, sulfur, glass property

ABSTRACT: The study was carried out at 1400-1450°C and the burning duration was from 5 min to 24 hours. The sulfur removal was found to increase with burning temperature and burning duration. The greater the carbon content in the glass charge, the less sulfur was removed. Regardless of the burning out process conditions and carbon content in the glass, the minimum sulfur content in the final glass product was 0.02-0.03%. After rapid sulfur removal in the initial 3-5 minutes of burning, the rate declined sharply. On the basis of the experimental results the following correlation between sulfide sulfur content in glass and the burning out duration at a given temperature was determined:

$$y_t = y_0 - e^a + b \ln t + c \ln^2 t$$

Cord 1/2

UDC: 666.199

L 4019-66

ACCESSION NR: AP5022278

UR/0363/65/001/007/1234/1235

AUTHOR: Pavlushkin, N. M.

TITLE: Isaak Il'ich Kitaygorodskiy

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 7, 1965, 1234-1235

TOPIC TAGS: glass, heat resistant glass

ABSTRACT: This is an obituary of I. I. Kitaygorodskiy, a chemist of world renown for his work in the chemistry and technology of glass and pyroceramics, winner of numerous prizes and a Lenin Prize, doctor of technical sciences, and professor who headed the department of chemical technology of glass and pyroceramics at MKhTI im. D. I. Mendeleeva. The various phases of his theoretical and experimental work in glass and pyroceramics are sketched, and his great pedagogical contributions are described. He was the author of over 300 publications, including 18 monographs, and held 70 authorship certificates. Orig. art. has: 1 figure.

ASSOCIATION: none

Cord 1/2

L 4019-66

ACCESSION NR: AP5022278

SUBMITTED: 00

ENCL: 00

SUB CODE: GO, MT

NO REF SOV: 000

OTHER: 000

Card

mlr
2/2

L 55870-65 EWP(s)/EWT(m)/EWP(1)/EWP(b) Page WH

ACCESSION NR: AR5014989

UR/0081/65/000/008/M011/M011

SOURCE: Ref. zh. Khimiya. Abs. 8M95

AUTHOR: Pavlushkin, N. M.; Nurbekov, T. D.

TITLE: Some properties of glasses of slag composition ¹⁵

CITED SOURCE: Sb. Khimiya i khim. tekhnol. T. 2. Alma-Ata, 1964, 283-287

TOPIC TAGS: slag glass, ferrite glass, lead zinc slag, copper slag, glass physical property, glass corrosiveness

TRANSLATION: A study was made to determine the possibility of obtaining synthetic glasses having an Fe_2O_3 content which is the same as that in slags, and to determine their principal physicochemical properties. Slags of the Ust'-Kamenogorsk lead-zinc complex and Karsakpay copper-smelting plant were investigated. The chemical composition of the slags is given. A set of glasses consisting of 3 series (80 variants) was chosen for the study. The first series included 4 components (SiO_2 , Al_2O_3 , CaO , Fe_2O_3), the second series, 5 components (SiO_2 , Al_2O_3 , CaO , Fe_2O_3 , MgO), and the third series, 6 components (SiO_2 , Al_2O_3 , CaO , Fe_2O_3 , MgO , Na_2O_3). For comparison, glasses corresponding (in their main components) to

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ACCESSION NR: AR5014989

the composition of the lead-zinc and copper slags were also studied. Results obtained from the study of certain properties of glasses of the first series are given. It was found that all the compositions achieve complete melting in 3 to 4 hr. at 1500C and yield glasses on cooling. The glasses obtained have the following properties: relatively high softening temperature (720-850C), relatively low coefficient of linear expansion (from 47×10^{-7} to 80×10^{-7}), and high microhardness (954-695 kg/mm²). Disadvantages of these glasses include a high crystallizing capacity, corrosiveness toward refractory materials, and high melting temperature. I. Mikhaylova

SUB CODE: MT

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L 51181-65 EWT(1)/ENP(c)/EPA(s)-2/ENT(m)/ENT(1)/EPA(w)-2/
 EEC(t)/EPA(bb)-2/ENP(b)/EWA(h) Po-h/Pt-h/Ps-5/Pq-h/Pas-2/Pt-7/Pb/P1-4 Wn/
 ACCESSION NR: AP5014088 CN/WH UR/0363/65/001/004/0619/0624
 666.189.3 76
 74
 6

AUTHOR: Kitaygorodskiy, I. I.; Krylov, V. F.; Petrov, S. V.; Pavlushkin, N. M.

TITLE: A converter method for obtaining foamed slag sitalls (pyrocerams)

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 4, 1965,
 619-624

TOPIC TAGS: pyroceram, foamed pyroceram, sitall, foamed sitall, pyroceram blast
 furnace

ABSTRACT: Based on an idea of V. V. Serov, a new method has been developed for ob-
 taining nonmetallic melts, including silicates, in a furnace called a converter
 by the authors. The special feature of this furnace is that fuel is burned directly
 in the melt, into which it is blown together with air through special tuyeres near
 the bottom of the furnace. The furnace has no inner refractory lining because the
 melt itself fulfills the lining function by solidifying on the water-cooled cast-
 iron walls and vaulted ceiling. Using this method, high temperatures can be obtained,
 and the melt is not contaminated by the materials of a refractory lining as used
 otherwise. The furnace, which is in operation at the Tula Experimental Plant of

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ACCESSION NR: AP5014088

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GIS [State Scientific Research Glass Institute], is the first experimental furnace of this type. In size it can be considered to be a pilot plant installation. A schematic diagram of this installation is shown in Fig. 1 of the Enclosure. The "converter" 4 is charged with liquid slag melt from a transporting 1 and a measuring 2 ladle by means of trough 3. Solid materials such as quartz, sand, catalysts, etc., are fed in from a hopper. The converter can be emptied through orifices 6 and 7; 5 is a tuyere. Porous lightweight pyrocerams (foamed slag sitalls) were obtained from which large-size castings were made: 100 x 100; 100 x 300; 100 x 600 cm; and from 15 to 20 cm thick. The compressive strength of the materials obtained was in the range of from 70 to 110 kg/mm³, depending on the volume weight. An improvement in compressive strength is expected as a result of improved annealing. Orig. art. has: 7 figures. [BN]

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskij institut im. D. I. Mendeleeva (Moscow Chemical Technology Institute)

SUBMITTED: 23Jan65

ENCL: 01

SUB CODE: MT

NO REF SOV: 000

OTHER: 000

ATD PRESS: 4017

Card 2/3

L 51481-65
ACCESSION NR: AP5014088

ENCLOSURE: 01

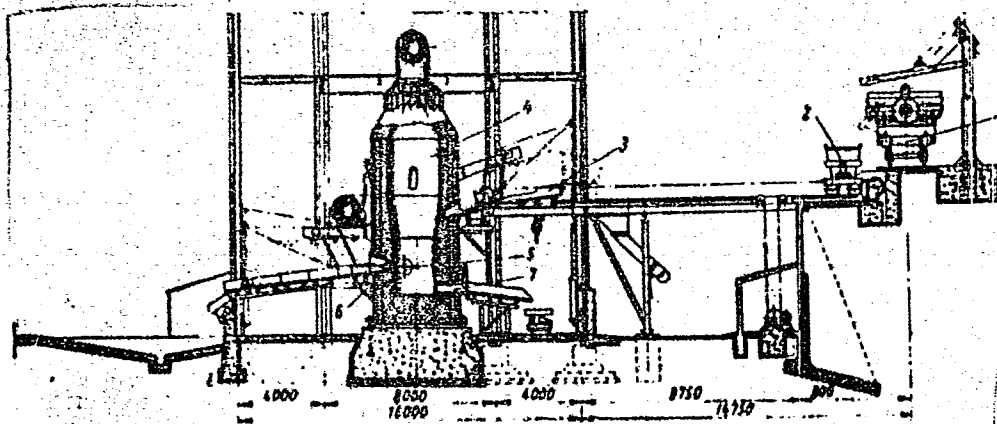


Fig. 1. Converter furnace installation

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L 43091-65 EWP(e)/EWT(m)/EWP(i)/EWP(b) - Pq-4 - MH

ACCESSION NR: AR5006827

S/0081/65/000/001/M012/M012

SOURCE: Ref. zh. Khimiya, Abs. 1M83

AUTHOR: Pavlushkin, N.M.; Nurbekov, T.D.

TITLE: A study of some of the physicochemical properties of high-iron glasses of slag composition

CITED SOURCE: Tr. Mosk. khim.-tekhnol. in-ta im D.I. Mendeleyeva, vyp. 45, 1964, 139-144

TOPIC TAGS: glass chemical property, glass physical property, high iron glass, slag glass, lead zinc slag, copper slag, banking slag, ferric oxide, magnesia, alkaline oxide, metal impurity

TRANSLATION: The authors established the possibility of obtaining glasses based on pure oxides and containing, among their components, those which correspond to the composition of some of the slags of non-ferrous metallurgy; they also determined the effect of individual oxides on the principal physicochemical properties of these glasses. The authors also studied the properties of glasses prepared from the following actual slags: banking slag from the Karsakpayskiy medeplavil'nyy zavod (Karsakpay Copper

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ACCESSION NR: AR5006827

Smelting Plant) and granulated slag from the Ust'-Kamenogorskiy svintsovo-tsinkovoy kombinat (Ust'-Kamenogorsk Lead and Zinc Combine). The chemical analysis of the slags is presented. The authors studied a group of glasses consisting of 4 series (85 compositions). In the first series (SiO_2 , Al_2O_3 , CaO , Fe_2O_3), they studied the effect of Fe_2O_3 (0-32.5 mol. %) on the principal physicochemical properties. In the second series (SiO_2 , Al_2O_3 , CaO , Fe_2O_3 , MgO), they studied the effect of MgO (1, 2, 3, 5, 7 and 10 wt. %). In the third series (SiO_2 , Al_2O_3 , CaO , Fe_2O_3 , MgO , Na_2O), they studied the effect of alkaline oxides (1, 2, 3 and 5 wt. %) on the technological, physico-mechanical, thermal and chemical properties of the glasses. In the fourth series, they studied the effect of admixtures (metals such as Pb, Cu, Zn, Ni, etc., either free or bound to S) on the physicochemical properties of glasses based on slags from the lead-zinc and copper industries. The experimental results obtained during the study of the properties of the second and third series of glasses are presented, as well as a comparison of their properties with those of the fourth series. I. Mikhaylova

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PAVLUSHKIN, N.M.

Effect of the addition of elements of the second group on the
properties of fired corundum. Trudy MKHTI no.37:135-147 '62.

Preparation of corundum microsection

1962:39
(MIKA 16:12)

PAVLUSHKIN, N.M.; ZHURAVLEV, A.K.; EYTINGON, S.I.

Enameling jewelry made of aluminum. Stek. 1 ksr. 18 no.7:35-37
Jl '61. (MIRA 14:7)
(Jewelry) (Enamel and enameling) (Aluminum)

PAVLUSHKIN, N.M.

Effect of dispersion on the fusion of corundum. Stek. i ker. 16
no.1:11-15 Ja '59. (MIRA 11:12)

1. Moskovskiy khimiko-tekhnologicheskij institut imeni Mendeleyeva.
(Dispersion) (Corundum) (Glass manufacture)

137-58-6-12112

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 132 (USSR)

AUTHOR: Pavlushkin, N.M.

TITLE: The Effect of Addition of Elements of Group I on the Properties of Sintered Corundum (Vliyaniye dobavok elementov pervoy gruppy na svoystva spechennogo korunda)

PERIODICAL: Tr. Mosk. khim.-tekhnol. in-ta im. D.I. Mendeleeva, 1957, Nr 24, pp 164-179

ABSTRACT: Investigations were carried out in order to determine the influence of 53 different additives (particularly elements of the first group) on the sintering and the mechanical properties of corundum. The additives were introduced in the form of various compounds. Their concentration amounted to 0.001; 0.005; 0.015, and 0.030 g-ions per 100 g of Al_2O_3 . The sintering temperature for the specimens varied from 1580 to 1820°C at an exposure time of 20 min. Sintered corundum of greatest density was obtained at temperatures of 1710-1780°C. In the temperature range of 1670-1710°, the addition of any element of group I (at a concentration of 0.005 g-ions per 100 g) resulted in an intensification of the sintering process. Maximum

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137-58-6-12112

The Effect of Addition of Elements of Group I (cont.)

strength was achieved at a temperature of 1670°, the only exception being those specimens to which Li_2CO_3 had been added. Maximum and minimum strength was obtained by adding RbCl or Na_2CO_3 respectively. Greatest microhardness and brittleness were observed when AuCl_3 was added, whereas the addition of Na_2CO_3 reduced these properties to a minimum. The growth of Al_2O_3 crystals is intensified by the addition of compounds of Cu, K, Rb, and Ag, whereas the addition of Cs, Li, Na, and Au compounds retards the grain growth.

I.B.

1. Corundum--Sintering 2. Corundum--Properties 3. Corundum--Mechanical properties

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PAVLUSHKIN, N.M.

Effect of additives made of first-group elements on the properties
of sintered corundum. Trudy MKHTI no.24:164-179 '57. (MIRA 11:6)
(Corundum)

PAVLUSHKIN, N.M.

Resistance of sintered corundum to friction against metallic
surfaces. Trudy MKHTI no. 24:180-183 '57. (MIRA 11:6)
(Corundum) (Friction)

PAVLUSHKIN, N.M.

Various methods for measuring the hardness of sintered corundum.
(MIRA 11:6)
Trudy MKHTI no.24:184-189 '57.
(Corundum)

PAVUSHKIN, N. M.

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✓ Characteristics of corundum microlite. I. I. Kitagorod-
skii and N. M. Pavushkin. *Steklo i Keram.* 12, No. 11,
18-21(1965); cf. C.A.B. 43, 9039h. — Photomicrographs show
that structure of corundum microlite differs considerably
from ordinary corundum materials. B. Z. Kamich

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KITAYGORODSKIY, I.I., doktor tekhn. nauk, prof.; KACHALOV, N.N., prof.;
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 B.S., kand. tekhn. nauk; GLADYSHEVA, S.A., red. izd-va; TEMKINA, Ye.L.,
 tekhn. red.

[Glass technology] Tekhnologiya stekla. Izd.3., perer. Moskva, Gos.
 izd-vo lit-ry po stroit., arkhitekt. i stroit. materialam, 1961. 622 p.
 (MIRA 14:10)

1. Chlen-korrespondent AN SSSR (for Kachalov).
 (Glass manufacture)

PAVLUSHKIN, Nikozy Mikheyevich, doktor tekhn. nauk; GURVICH, B.A.,
red. izd-va; OSEKHO, L.M., tekhn. red.

[Sintered corundum] Spachennyi korund. Moskva, Gos. izd-
vo lit-ry po stroit., arkhitekt. i stroit. materialam, 1961.
206 p. (MIRA 14:5)

1. Moskovskiy khimiko-tekhnologicheskii institut im. D.I.
Mendeleeva (for Pavlushkin) (Sintering) (Corundum)